April 4, 2023

Ms. Christina Gallick
ECAD/AB
United States Environmental Protection Agency
Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

Tim Dore
General Counsel
C6-Zero Iowa LLC
810 E. South St
Marengo, IA 52301

RE: Responses to Inquiry dated March 9, 2023

Ms. Gallick:

Please see the below responses to questions 1-4 from EPA's inquiry letter dated March 9, 2023 with additional questions to C6-Zero operations. C6-Zero Iowa appreciates the opportunity to answer questions from the December 8 incident and strives to answer each question as thoroughly and comprehensively as possible.

All answers are provided by C6-Zero employees Howard Brand (Chief Executive Officer) and Daniel Diorio (Chief of Staff, Strategic Affairs), and experts from Los Alamos Technical Associates that were consulted in the preparation of this document.

Please contact me with any additional questions the agency may have or if I can provide any additional clarification.

Sincerely,

Tim Dore
General Counsel
C6-Zero Iowa LLC

STATEMENT OF CERTIFICATION

C6-Zero Iowa LLC is submitting the enclosed documents in response to the EPA's Request for Information to determine compliance with the Clean Air Act, Clean Water Act, Comprehensive Environmental Response, Compensation and Liability Act, and Resource Conservation and Recovery Act.

I, Tim Dore, am authorized to represent C6-Zero Iowa LLC.

> I certify under penalty of law that I have personally examined and am familiar with, the statements and information submitted in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, correct, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information, or omitting required statements and information, including the possibility of fine or imprisonment.

Date: 4/4/2023

Signature: 

Title: General Counsel

C6-Zero Iowa LLC response to EPA Inquiry dated March 9, 2023

1. **Identify the classification of the building electrical system.**

   See attached "C6-Zero Safex Review," page 4.

   While the report identifies the emission control system as a Class 1, Division 1 area, no instrumentation is contained inside the duct work and thus there is not a significant risk of a spark inside the emission control system.

2. **Describe how C6-Zero Iowa LLC prevents the contamination of Kaniksu with incompatible materials and provide any supporting documentation.**

   The C6-Zero LLC chemical is stored in steel tanks and that physical separation is maintained until the Kaniksu is added to the processing unit containing asphalt shingles. The solvency characteristics of Kaniksu will chemically bond with the asphalt on the shingle and liquify the combined molecules by simple solvent action. The Kaniksu chemical is hydrocarbon based and will not create an exothermic reaction unless exposed to flame. Once the Kaniksu is mixed with the asphalt shingles it becomes more stable.

3. **Describe how the trommel system and the conveyor belts were designed and built to handle flammable substances, including protection from hazards arising from heat, flames, sparks, static, and other sources of ignition, and provide supporting documentation.**

   All motors controlling the trommel system and conveyor belts were operated by hydraulics to specifically reduce risks of spark and static. There was one electric motor located outside of the trommel area which operated the conveyor belt transporting the raw shingle material into trommel 1.

4. **Describe how the Facility's emission control system was protected from hazards arising from flammable and combustible vapors and ignition sources, including the electrical classification of its components, and provide any supporting documentation.**

   See attached "C6-Zero Shingle Vapor Controls" document.

   The emission control system is operated under a vacuum to contain any fugitive emissions off the processing units. The only electrical component is an electric motor connected to the induced draft centrifugal fan. The electrical motor enclosure is Totally Enclosed Fan Cooled (TEFC) supplied by General Carbon for a typical vapor phase carbon system.

   The vapor control system operates under ambient conditions.